

AMENDMENTS TO THE CLAIMS

1.(currently amended): A packet processing device for processing a layered communication protocol comprising:[:]
a receiving buffer of an upper layer,
[[a]] first means ~~for~~ notifying a free space of the receiving buffer,
[[a]] second means ~~for~~ reassembling a plurality of receiving packets into a single big packet, based on the free space, to be transmitted to the receiving buffer, and
[[a]] third means ~~for~~ determining a size of the big packet based on the free space.

9 5 2.(original): The packet processing device as claimed in claim 1 wherein the first means is included in the upper layer and notifies the free space to the third means.

3.(currently amended): The packet processing device as claimed in claim 1 wherein the first means comprises a backward packet inclusive information reading circuit ~~for~~ detecting the free space based on information within a backward packet from the upper layer.

4.(original): The packet processing device as claimed in claim 2 wherein the upper layer comprises a transport layer.

5.(original): The packet processing device as claimed in claim 2 wherein the upper layer comprises an application layer and the big packet is transmitted not through a buffer of a transport layer but directly to the receiving buffer.

6.(currently amended): The packet processing device as claimed in claim 1, further comprising a connection identifying circuit ~~for~~ identifying a connection of the receiving packets, the second means reassembling the big packet for each connection based on identification information of the identifying circuit.

7.(currently amended): The packet processing device as claimed in claim 1, further comprising a checksum calculating circuit ~~for~~ adding a checksum to the big packet.

a5 8.(original): The packet processing device as claimed in claim 1 wherein the third means has a timer for giving the second means instructions for transmitting the big packet to the receiving buffer when a predetermined time elapses.

9.(original): The packet processing device as claimed in claim 1 wherein the third means gives the second means instructions for assigning the big packet to the receiving buffer at a time when the big packet attains a size for issuance of an acknowledgement packet from the upper layer.

10.(original): The packet processing device as claimed in claim 1 wherein the second means assembles the big packet with a first receiving packet including a header and subsequently received packets whose headers are deleted.

11.(currently amended): The packet processing device as claimed in claim 1, further comprising means ~~for~~ immediately transmitting the receiving packet to the receiving buffer

without storing the receiving packet in the second means when the receiving packet is a non-accumulation packet.

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12.(original): The packet processing device as claimed in claim 1, further comprising an L3 switch which has a packet transfer function in a network layer made in a hardware form and transmits a plurality of receiving packets addressed to itself to the second means.

13.(currently amended): An NIC device comprising the packet processing device according to claim 1 ~~for transmitting~~ which transmits a plurality of receiving packets addressed to itself to the second means.
